CUNY SPS DATA 621 - CTG5 - HW4

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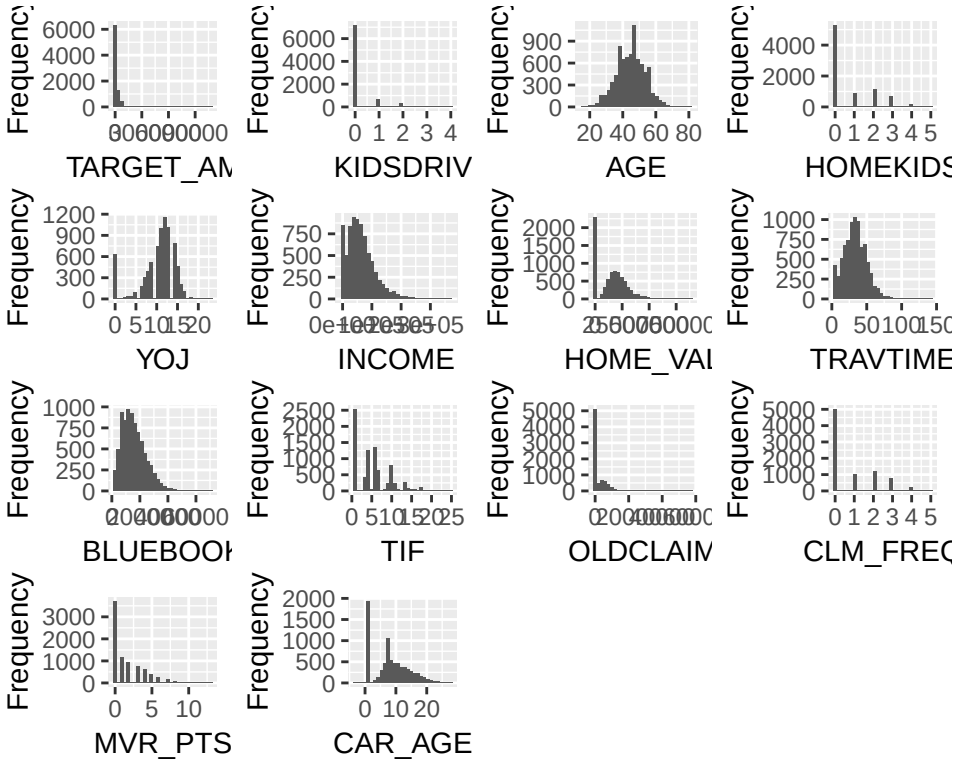
April 24th, 2019

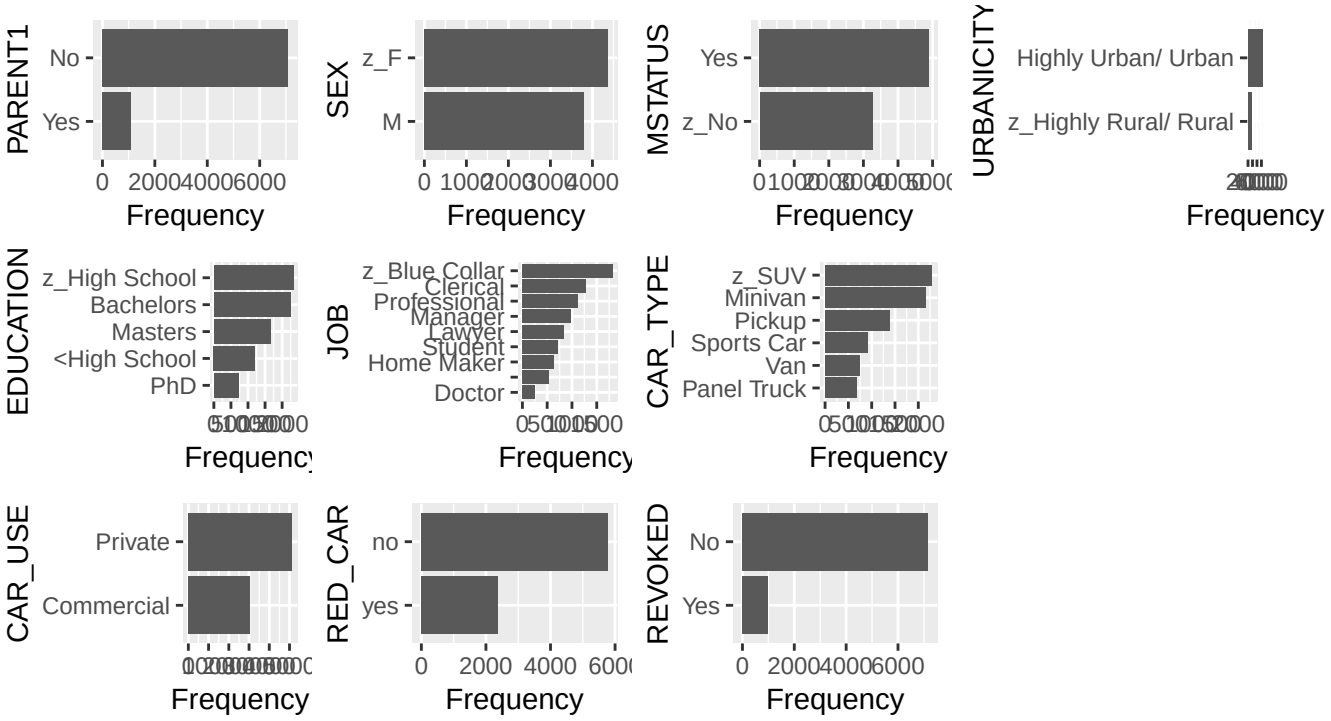
Contents

Table 1: Data Dictionary

VARIABLE	DEFINITION	TYPE
TARGET_FLAG	car crash = 1, no car crash = 0	response
TARGET_AMT	car crash cost = >0, no car crash = 0	response
AGE	driver's age - very young/old tend to be risky	numerical predictor
BLUEBOOK	$ value of vehicle	numerical predictor
CAR_AGE	age of vehicle	numerical predictor
CAR_TYPE	type of car (6types)	categorical predictor
CAR_USE	usage of car (commercial/private)	categorical predictor
CLM_FREQ	number of claims past 5 years	numerical predictor
EDUCATION	max education level (5types)	categorical predictor
HOMEKIDS	number of children at home	numerical predictor
HOME_VAL	$ value of home - home owners tend to drive more responsibly	numerical predictor
INCOME	$ income - rich people tend to get into fewer crashes	numerical predictor
JOB	job category (8types, 1missing)- white collar jobs tend to be safer	categorical predictor
KIDSDRIV	number of driving children - teenagers likely get into crashes	numerical predictor
MSTATUS	maritial status - married people drive more safely	catogerical predictor
MVR_PTS	number of traffic tickets	numerical predictor
OLDCLAIM	$ total claims in the past 5 years	numerical predictor
PARENT1	single parent	categorical predictor
RED_CAR	a red car	categorical predictor
REVOKED	license revoked (past 7 years) - more risky driver	categorical predictor
SEX	gender - woman may have less crashes than man	categorical predictor
TIF	time in force - number of years being customer	numerical predictor
TRAVTIME	distance to work	numerical predictor
URBANCITY	urban/rural	categorical predictor
YOJ	years on job - the longer they stay more safe	numerical predictor

1 DATA EXPLORATION





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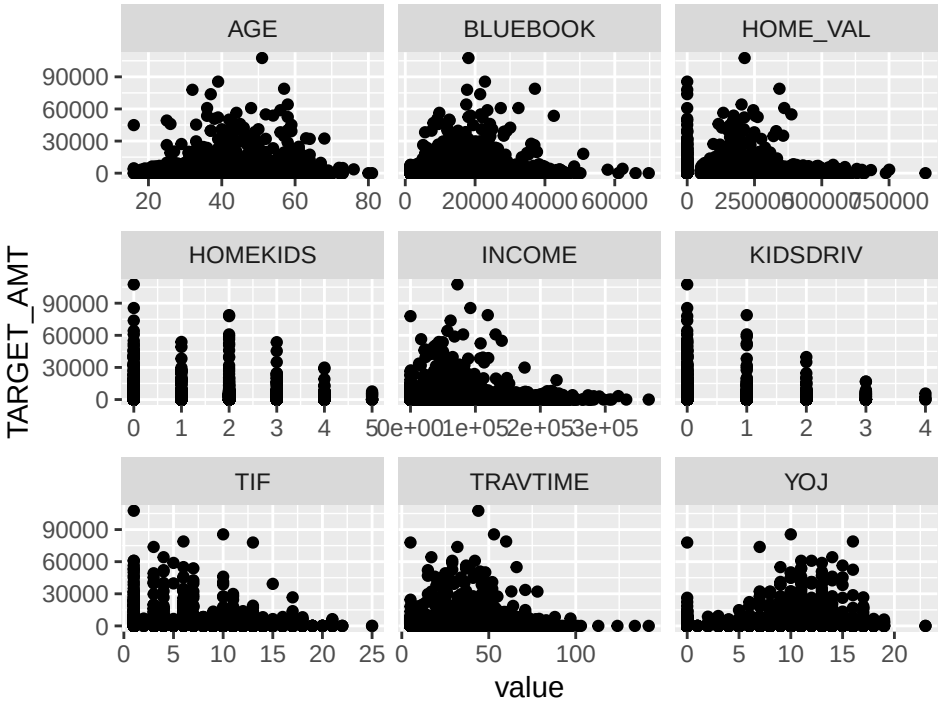
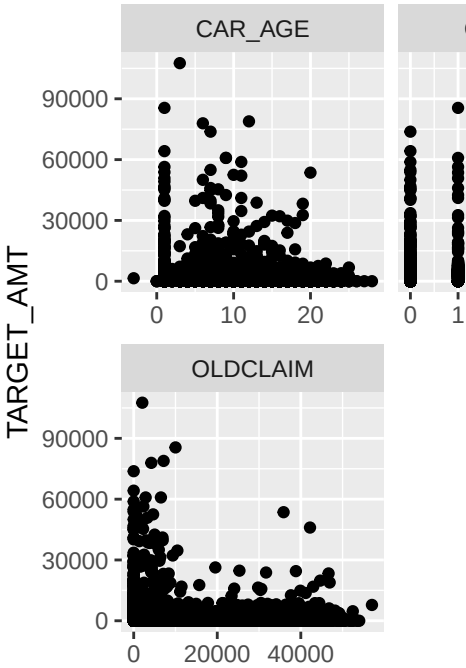

AGE
BLUEBOOK
HOME_VAL
HOMEKIDS
INCOME
KIDSDRIV
TIF
TRAVTIME
YOJ
TARGET_AMT
value


CAR_AGE
OLDCLAIM
TARGET_AMT

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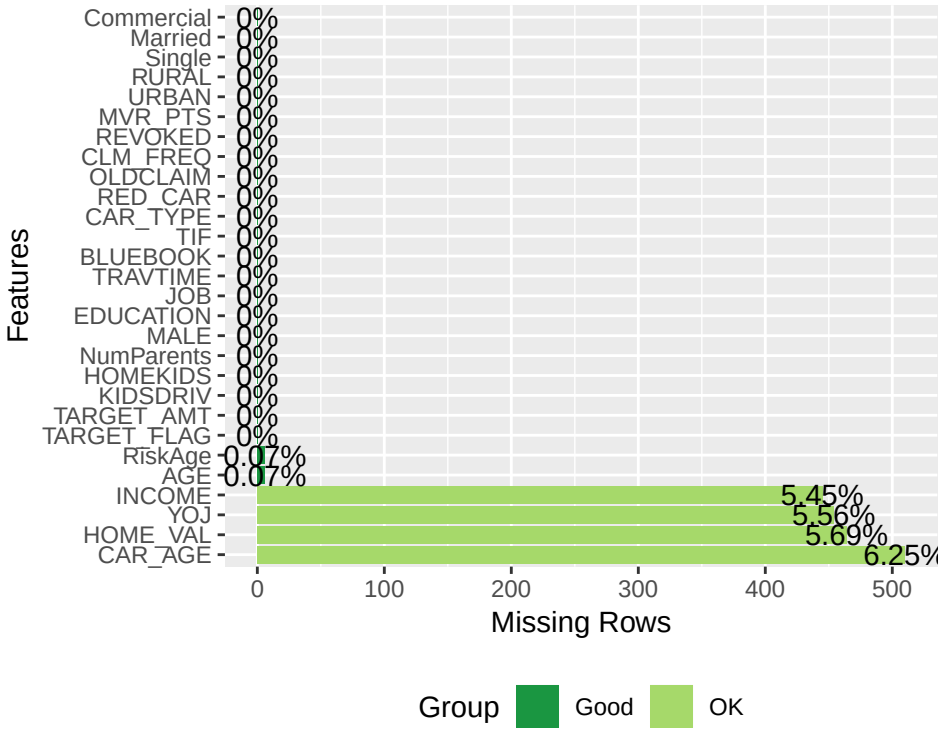
Commercial
Married
Single
RURAL
URBAN
MVR_PTS
REVOKED
CLM_FREQ
OLDCLAIM
RED_CAR
CAR_TYPE
TIF
BLUEBOOK
TRAVTIME
JOB
EDUCATION
MALE
NumParents
HOMEKIDS
KIDSDRIV
TARGET_AMT
TARGET_FLAG
RiskAge
AGE
INCOME
YOJ
HOME_VAL
CAR_AGE
0%
0.07%
0.07%
5.45%
5.56%
5.69%
6.25%
Features
Missing Rows
Group
Good
OK

2 DATA PREPARATION

3 BUILD MODELS

4 SELECT MODELS

5 Appendix

The appendix is available as script.R file in `project4_insurance` folder.

https://github.com/betsyrosalen/DATA_621_Business_Analyt_and_Data_Mining